AMENDMENTS

Please amend the specification filed in Electronic Version on Aug. 2, 2004 as indicated hereafter.

Amendments to the Specification:

Please replace paragraph [0005] with the following amended paragraph:

--[0005] With the rapid development of electronic technology, a variety of electronic devices such as display device, printer, mobile phone or image sensor device may display colored images. Conventionally, when a digital image captured by, for example, an image sensor is processed, in general the image data of each pixel of the digital image is decomposed into basic color component data including such as red, blue and green color component data. For example, in the color recognition process, such as the color recognition of toy or color code of resistor, the corresponding color code is recognized and outputted according to the red, blue or green color component data of the basic color component data of each pixel. --

Please replace paragraph [0006] with the following amended paragraph:

--[0006] In general, in the color recognition process, if the color code is recognized only according to the red, blue or green color component data of each pixel of the digital image, the brightness of each pixel of the digital image will cause erroneous recognition. Therefore, generally the red, blue and green color component data of each pixel of the digital image are generated by normalization operation, and then the color code is recognized according to the normalized image data. Therefore, the brightness of the image data is considered and the error of the color recognition is avoided. Assuming that the normalized red, blue and green color component data of the original red, blue and green color component data R, G and B are

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represented by r, g and b respectively, a conventional equation of color normalization may be expressed as follows:--

Please replace paragraph [0024] with the following amended paragraph:

--[0024] Alternatively, when the pixel is identified to be achromatic, the rapid color recognition method further comprises, for example but not limited to, the following steps. First, whether the color of the pixel is black color, white color or gray-scale color is identified according to the_brightness of the pixel. Thereafter, a color code of the black color, the white color or the gray-scale color is outputted. In one embodiment of the invention, the identification of whether the color of the pixel is black color, white color or gray-scale color according to the brightness of the pixel is calculated by the following equations:--

Please replace paragraph [0038] with the following amended paragraph:

--[0038] FIG. 1 illustrates an image data processing system. Referring to FIG. 1, the image capture unit 110 is provided for capturing an image and outputting an image data with a plurality of bits. Then the image data is processed by the color digital signal process unit 120. The processing of the image data comprises, for example but not limited to, white balance calibration or color calibration and then outputting, for example three basic color component data such as red (R), bluegreen (G), and greenblue (B)_color component data. Then, color recognition and classification unit 130 recognize the color of each pixel of the image data according to the three basic color component data R, G and B to output the color code for representing the color of the pixel.--

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Please replace paragraph [0054] with the following amended paragraph:

--[0054] Furthermore, any point of the regular triangle plane 310 can be transformed and represented into coordinate (X,Y) located in a plane by using any side of the regular triangle plane 310 as a base. In one embodiment of the invention, in order to simplify the equation of the classification of the color of the color recognition, the magnification s_is provided to scale the coordinate data in the coordinate transformation. For example, if the magnification s is 1024, the data of the pixel can be transformed into, for example but not limited to, $((r-g+1)*1024, b*1024)$. Therefore, the regular triangle plane 310 obtained from normalization of the basic color component data is extended and scaled into an isosceles right triangle plane 410 shown in FIG. 4. FIG. 4 illustrates an isosceles right triangle plan obtained by extending and scaling the regular triangle plane of FIG. 3.--